

What is claimed is:

1 1. A mask for a color cathode ray tube, the mask comprising:
2 a plurality of strips being parallel to each other, being isolated from each other, and being
3 located at predetermined intervals; and
4 a plurality of bridges connecting adjacent ones of said strips to each other and forming
5 slots extending from a first surface of said mask to a second surface of said mask, said slots
6 being penetrated by electron beams, said bridges being indented to a predetermined depth from
7 said first surface of said mask so that a thickness of said mask at a central portion of said bridges
8 is relatively thinner than a thickness of said mask at an outer portion of said bridges.

9 2. The mask of claim 1, said slots formed by said bridges including a first slot, the
10 electron beams entering said first slot at said second surface of said mask and exiting said first
11 slot at said first surface of said mask, said first slot at said second surface having a first center as
12 measured substantially parallel to said first surface of said mask, said first slot at said first surface
13 having a second center as measured substantially parallel to said first surface of said mask, said
14 first and second centers of said first slot not being aligned with each other.

15 3. The mask of claim 2, said mask having a central region and a periphery region
16 away from said central region, said first slot being located in said periphery region at a first
17 position not close to said central region, said first center being a first distance from said central

region, said second center being a second distance from said central region, said first distance being less than said second distance, said first center being separated from said second center by a first length as measured substantially parallel to said first surface of said mask.

4. The mask of claim 3, said slots formed by said bridges further including a second slot, the electron beams entering said second slot at said second surface of said mask and exiting said second slot at said first surface of said mask, said second slot at said second surface having a first center as measured substantially parallel to said first surface of said mask, said second slot at said first surface having a second center as measured substantially parallel to said first surface of said mask, said first and second centers of said second slot not being aligned with each other.

5. The mask of claim 4, said second slot being located in said periphery region at a position close to said central region, said first center of said second slot being a third distance from said central region, said second center of said second slot being a fourth distance from said central region, said third distance being less than said fourth distance, said first center of said second slot being separated from said second center of said second slot by a second length as measured substantially parallel to said first surface of said mask, said second length being less than said first length, said first distance being greater than said third distance.

6. The mask of claim 1, said plurality of bridges including first bridges near a central region of said mask and including second bridges near a periphery region of said mask away

3 from said central region, a first width of said first bridges as measured perpendicular to a length
4 direction of said slots being smaller than a second width of said second bridges, said first and
5 second widths being measured perpendicular to the length direction of said slots.

1 7. The mask of claim 1, said plurality of bridges forming said slots in a slotted
2 region of said mask, said slots not being formed in a non-slotted region of said mask, said
3 plurality of bridges including first bridges near a center of said slotted region of said mask and
4 including second bridges near a periphery of said slotted region away from said center, said first
5 bridges being indented to a first predetermined depth, said second bridges being indented to a
6 second predetermined depth, said first predetermined depth being deeper than said second
7 predetermined depth.

1 8. The mask of claim 1, said plurality of bridges including first bridges near a central
2 region of said mask and including second bridges near a periphery region of said mask away
3 from said central region, a vertical length of said first bridges as measured substantially parallel
4 to a length direction of said slots being smaller than a vertical length of said second bridges as
5 measured substantially parallel to the length direction of said slots.

1 9. The mask of claim 1, each one of said slots formed by said plurality of bridges
2 having a first curved portion adjacent to an upper surface of said mask and having a second
3 curved portion adjacent to a lower surface said mask, said first curved portion extending in the

length direction of said strips and having a first width as measured substantially perpendicular to a length direction of said strips, said second curved portion extending in the length direction of said strips and having a second width as measured substantially perpendicular to the length direction of said strips, said first width being larger than said second width.

10. The mask of claim 9, said slots formed by said bridges including a first slot, the electron beams entering said first slot at said second surface of said mask and exiting said first slot at said first surface of said mask, said first slot at said second surface having a first center as measured substantially parallel to said first surface of said mask, said first slot at said first surface having a second center as measured substantially parallel to said first surface of said mask, said first and second centers of said first slot not being aligned with each other.

11. The mask of claim 10, said mask having a central region and a periphery region away from said central region, said first slot being located in said periphery region at a first position not close to said central region, said first center being a first distance from said central region, said second center being a second distance from said central region, said first distance being less than said second distance, said first center being separated from said second center by a first length as measured substantially parallel to said first surface of said mask.

12. The mask of claim 11, said slots formed by said bridges further including a second slot, the electron beams entering said second slot at said second surface of said mask and exiting

3 said second slot at said first surface of said mask, said second slot at said second surface having a
4 first center as measured substantially parallel to said first surface of said mask, said second slot at
5 said first surface having a second center as measured substantially parallel to said first surface of
6 said mask, said first and second centers of said second slot not being aligned with each other.

1 13. The mask of claim 12, said second slot being located in said periphery region at a
2 position close to said central region, said first center of said second slot being a third distance
3 from said central region, said second center of said second slot being a fourth distance from said
4 central region, said third distance being less than said fourth distance, said first center of said
5 second slot being separated from said second center of said second slot by a second length as
6 measured substantially parallel to said first surface of said mask, said second length being less
7 than said first length, said first distance being greater than said third distance.

1 14. A method of manufacturing a mask for a color cathode ray tube, the method
2 comprising:

3 coating upper and lower surfaces of a thin plate with photosensitive films;

4 arranging an upper exposure mask on said upper surface of said thin plate, said upper
5 exposure mask having an exposure pattern with upper light transmission strips being formed in
6 parallel to each other;

7 arranging a lower exposure mask on said lower surface of said thin plate, said lower
8 exposure mask having an exposure pattern with lower light transmission strips being formed in

parallel to each other, and having lower light blocking bridges separating said lower light transmission strips;

exposing said photosensitive films to light in a state where said upper and lower exposure masks are arranged on said thin plate;

separating said upper and lower exposure masks from said thin plate, and developing said photosensitive films on said thin plate;

when said developing of said photosensitive films is performed, etching said thin plate;

and

molding a mask to have a predetermined curvature.

15. The method of claim 14, each of said upper light transmission strips having a first width, each of the lower light transmission strips having a second width, said first width being larger than said second width.

16. The method of claim 15, said upper exposure mask not having upper light blocking bridges separating said upper light transmission strips.

17. The method of claim 14, said upper exposure mask not having upper light blocking bridges separating said upper light transmission strips.

18. An exposure mask assembly, comprising:

an upper exposure mask being closely attached to an upper surface of a thin plate, said upper surface being coated with photosensitive films, said upper exposure mask having an exposure pattern with upper light transmission strips being formed in parallel to each other; and

a lower exposure mask being closely attached to a lower surface of said thin plate, said lower surface being coated with photosensitive films, said lower exposure mask having an exposure pattern with lower light transmission strips being formed in parallel to each other, and having lower light blocking bridges separating said lower light transmission strips, said lower light blocking bridges blocking light;

said photosensitive films on said upper and lower surfaces being exposed to light penetrating said upper and lower exposure masks through said upper and lower light transmission strips, respectively.

19. The exposure mask assembly of claim 18, each of said upper light transmission strips having a first width, each of the lower light transmission strips having a second width, said first width being larger than said second width.

20. The exposure mask assembly of claim 19, said upper exposure mask not having upper light blocking bridges separating said upper light transmission strips.

21. The exposure mask assembly of claim 18, said upper exposure mask not having upper light blocking bridges separating said upper light transmission strips.